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No. 2, Vol. XXXVII.

Sorgo Department.

COL. N. J. COLMAN, President: Yours of Dec. 20th is received. It would give me great pleasure to attend the meeting of the Mississippi Valley Cane Growers' Association this season, but my time is so occupied that it will be impossible. I have sent Prof. Wiley to attend the various conventions of sorgho cultivators and manufacturers of the country, and I have no doubt he will present himself to you, and I hope he will be able to afford you some information with regard to the subject which will occupy the attention of your association. Wishing you a successful meeting, and a prosperous season for 1884, I am very respectfully,

Geo. B. Loring, Com.

Washington, Jan. 3rd, 1884.

One of the interesting addresses to be delivered at the forthcoming Annual Meeting of the Mississippi Valley Cane Growers' Convention, will be that of Wm. McMurtrie, E. M. P. H. of Champlain, Ill., who will address the meeting on "The Possibilities of Sugar Beet in American Industries," an interesting subject, though not on Sorgho.

COL. COLMAN: Yours, inviting me to the annual meeting of the Mississippi Valley Cane Growers' meeting, at hand, I shall be pleased to be with you and the good company you always have. My subject will be "The Value of a Practical Knowledge of the Vacuum Pan Centrifugals, Bone-Back Filters, Kilns, and Defecation," which, I hope, will be interesting to the small operators as well as the large. Hope you had a jolly good time at Indianapolis. Wishing you a happy and prosperous New Year, believe me, yours truly,

John B. Thoms.

Chicago, Ills.

COL. N. J. COLMAN: Enclosed you will find one dollar for which please continue RURAL WORLD another year. I don't like to miss a single number. Is there any arrangement for reduced railroad fare to points this way, to the Cane Growers' Convention in St. Louis this year? I expect to attend the convention. Shall take sample of sirup and sugar to show what we are doing in Ohio, and to let you know that the northern cane business is not dead or dying here, notwithstanding a writer in the Country Gentleman and W. T. Chamberlain, Sec. of the Ohio State Board of Agriculture, have pitted themselves against it.

N. M.

Unionville, Lake Co., Ohio, Jan. 2nd.

COL. COLMAN: In your issue of Dec. 20th, F. W. Clark says he made sorghum sugar by using a honey centrifugal. Will he please describe his method? This is my second season at sirup making; made 3,800 gallons. I consider the Amber cane the best. Worked 46 jobs and 10 acres of my own. Never had any time to rest over 1-2 h. My late cane did not show any signs of grain. I used bagasse for fuel; it beats wood or coal, and don't require expensive grates either. I wish those who can write practical articles on sirup and sugar making would do so this winter.

Virgil City, Mo.

J. C. B.

COL. COLMAN: I have seen nothing from Sparta, Ills., lately, and began to think some of your folks may have supposed we had no cane here. But I am here, and we still have molasses. Northern sugar cane was a fair crop here, and I made 2,100 gallons, all for customers, which sold readily at 50 cents retail, and 40 cents by the barrel. Could have sold much more if we had it. There is enough of encouragement in the business to warrant one in saying we will plant more next season. Hope to be at the convention, and will if possible.

Sparta, Ills.

C. R. M.

COL. COLMAN: The sorghum ague is shaking us a little in this locality. We (as you perhaps are aware) certainly have suitable soil, and our most enterprising farmers are cognizant of the fact that continued plowing and corn-raising is foreign to the adaptation of our soil, and that we must turn our attention to grass and improved stock, and now if we can adopt the sorgho interest am satisfied it will add largely to our prosperity. We contemplate organizing a company to commence with as little capital at the start as will do the work successfully, as it will take time to interest and educate farmers in the enterprise. Is it not time the matter was understood, seed looked after, etc.?

What will a small (or medium) outfit probably cost, and what make of machinery gives most general satisfaction? All information or advice will be gladly received. Yours truly, A. M. B.

La Plata, Mo.

By all means come to the meeting of the Mississippi Valley Cane Growers' Association, 16th, 17th and 18th instants; there to meet, hear and talk with the leading spirits in the business. Your soil, country and men (good all round) are eminently adapted to the business and they can make more money per acre than with corn or wheat.

We have heretofore advised those whose attention it was to attend the meeting of the Mississippi Valley Cane Growers' Association, to bring with them full samples of their sirup and sugar made during the past year. As we said last week, quart samples of sirups in large wide-mouthed bottles, and sugar in sample boxes, are desirable. We expect to have a committee of capable gentlemen to arrange all samples for the meeting.

Time in Sirup.

COL. COLMAN: I have now passed my 25th anniversary in the sorgho sirup business, and with it I have seen again and again the baneful effect of the use of lime in cane juice when the aim is to make sirup only. Do not understand me to say that lime should never be used in the manufacture of sirup; but this I will say, because I believe it to be true, that one hundred gallons of sirup are injured in its use while one gallon is benefited. In an article in your paper of date May 25th, 1882, I used the words "no amateur should ever use lime, because in my experience twenty have failed in its use while one has succeeded." This I now repeat, because I believe it to be true. The expert may with safety use lime when he has the sulphur bath to undo what wrong the lime has done; but even in this case the greatest care is needed, else you have a "black strap" sirup instead of a fair transparent amber colored sirup. Lime always darkens sirup more or less and especially so when there is a predominance of the glucose. Again, there is in first-class cane juice an innate principle of self-clarification and when it is suddenly brought to the boiling point in a shallow body the action of the heat instantly throws all green scum to the surface, and if there is a suitable retreat for the scum to instantly float into you will find the juice freed at once from nearly everything of a gummy orummy nature, together with a considerable portion of acid. The gum and acid and intense heat arise with the first scum and if the scum is cast away immediately before the oxygen of the atmosphere can act upon them your work is done; but if you attempt to raise the scum, slowly and in a deep body then you give a chance for the acid and gums to separate from the scum, and then you will need some chemical to neutralize the effect of these foreign elements left in by this manner of cleansing the juice; hence lime is the agent sought, because it is the cheapest and most reliable agent yet discovered; but lo! you have as a result a darkened sirup, unless a bleacher is used, which is not practical for the amateur. In nearly every instance four times as much lime is used as should be, and "Black Strap" is the result, and am very sorry to say in many instances this poor good men have suffered heavily by its use by now being unable to sell their sirup. While here in Iowa today in my town good unlimed sirup (we don't make any other) is retailing at seventy-five cents per gallon and wholesaling at 55 to 60 cents per gallon.

While several parties have sent in heavily limed samples, and they are not wanted, unlimed sirup like that made by Henry Hedges, J. W. Smith and several others of Kansas, will readily sell here at 55 cents wholesale if they will send it in, and yet the blackened sirup cannot find a market at any price. If you have first-class unlimed sirup, like that made by the Drummond Bros., bring it to Eastern Iowa and you will find a ready market at 50 cents by the barrel. I will admit that there are many instances where lime used sparingly will be of great benefit to the sirup. Cane that has laid in the sun until fermentation has set in and frost bitten cane may be benefited by its use. Limed sirup is more likely to scorch in finishing than unlimed, on account of the extra precipitations in finishing trays caused by its use. I am well aware that I am with the minority on the lime question, so far as contributors are concerned, but when facts are as I find them I feel it a duty to write as I have written. While I freely admit that it is well for Prof. Scoville and Webster and Belcher and Schwarz to use lime or other chemicals, I still say it is unsafe for the amateur so to do. All who attended the St. Louis convention two years ago will recollect that old Father Hedges said "be very careful that you do not use too much lime."

Yours,

A. S. FOLGER.

Washington, Iowa.
P. S. Butler County, Kansas, is the best place for a sugar refinery I have seen in 5,000 miles of travel.

Does it Pay?

COL. COLMAN: I wish to say a few words about the profits of manufacturing sorghum. Thomas McQuiston of Morning Sun, Ohio, during the season averaged 150 gallons of sirup per day. He employed three hands counting himself, two horses, and burnt one cord of wood per day.

3 hands at \$1 50 per day.....	\$ 4 50
2 horses at \$1 00 each per day.....	2 00
1 cord wood per day.....	2 00
Coal oil per day.....	10
Lubricating oil per day.....	10
Total expense of running.....	\$8 65
He received 25c per gallon for manufacturing which would give \$37 50 for 150 gallons. Deducting \$8 65 from \$37 50 leaves \$28 85 of clear money for each day's run each season.	

\$28 25x30=\$865 50 of clear money made in 30 days.

A factory equal in capacity to his seed not cost over \$500. Hence, the cost of fitting up can be covered by the first year's run and have \$365 50 of money left. Having consulted with a number of small operators I have found no one whose expense exceeded nine cents per gallon. Some cut it down to less than six cents.

Does anything the farmer can engage in bring in so much clear gain? The only way I have ever known money to be lost in the business was where men tried to be large operators before they became successful small operators.

W. L. ANDERSON.

Harvesting Cane.

BY E. W. DEMING, OF LAFAYETTE SUGAR REFINERY.

There are nearly as many different ways of harvesting cane as there are growers. It is an expensive branch of the business and will stand much improvement. The question of stripped and unstripped cane for medium and large sized mills is generally decided in favor of unstripped. Experiments at Washington with unstripped cane have given three per cent more sirup than from stripped, and sirup has been made from the leaves. Stripping costs from one and one-half to three dollars per acre. Cane with leaves on loads easier, rides without slipping, dumps better, men at mill prefer to handle it and it feeds better at the mill. Some claim the leaves fill in between the stalks as it passes through the mill giving a higher per cent of juice. Some claim cannot pass as many stalks through the mill in a given time as with stripped cane, but this surely will not compensate for the expense of stripping and inconvenience in handling. Cane is handled on platform wagons much expressly for that purpose. The forward wheels average 34 inches in diameter, 3 inches tire and 3 foot tread. The rear wheels average 38 inches in diameter 4 inch tire and 5 foot tread. Platform 12 feet long 5 1-2 feet wide, evenly balanced on rear axle. The wheels are entirely under the platform. A good team with these wagons will haul a ton on soft ground where a lumber wagon would cut down 3 loads. The cutter with his left arm bends over a few stalks of the outside row cutting them so they fall directly from the rows; following him is a man who grasps the fallen stalks just below the tuft until he has all he can clasp with one hand, then taking one step directly from the cane he drops the heads in a bunch, the butts being spread out fan-shaped. Cane is cut in lands same as plowmen, it stands up well one cutter will keep two men picking up, if down or tangled one man will pick it up. 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 trees and Shrubbery. Land for sale or
 proprietor. Address, M. COLE & CO., Atlanta:

The Dairy.

The difference between the dairy and creamery system of making butter is that by the dairy system each farmer makes butter his own way. By the creamery system the farmers of a community have one man at some central point to make it for them, and they thus get one kind and quality of butter. The maker understands his business and makes it with skill, and it commands the highest price in market. By the dairy system you have fifty or sixty kinds of butter, all differing more or less in quality.

Mr. S. T. Hopson of Girard, Illinois, one of the oldest dairymen in the West paid us a visit on Wednesday. He is looking forward to the Mississippi Valley Dairy and Creamery Men's Convention with a great deal of interest, and commends it as a move that ought to have been made long ago. He is a York State man, was educated to think cheese a more profitable article than butter, and what is more, thinks so yet. He loves the idea that a pound of butter can be made at as little expense as a pound of beef, and has read with relish the articles to that effect in the RURAL WORLD, but he says that three pounds of cheese can be made to one pound of butter, that cream cheese can be sold for from 18 to 20 cents per pound all the year round, in any market in the United States, will keep longer and sell better, and that there is more money in a combined cheese and butter factory than in the latter alone.

This is a matter that claims the attention of dairymen and creamerymen generally, for anything that adds value to farm products is of interest to every farmer in the Western States. We look forward to this meeting as one of importance to the State of Missouri, and are calculating to develop a branch of business heretofore neglected, but beyond all question more profitable than it has been credited with.

By all means, let every one interested make it a matter of business to be at that meeting.

Home-Made Butter.

There is, perhaps, no good reason why one person should not be able to make butter as well as another, or that a person on a farm with but half a dozen cows should not make as good an article as a man at the creamery, having the produce of 500 to 600 to work upon. These points will not, we presume, be disputed or denied. When, however, we turn to our market reports to see what home-made, dairy and creamery butter sell for, we find a difference that is simply amazing. Nor is this difference of a merely local character, but is found throughout the country, except in very rare and exceptional cases. There are private dairies in the East, for instance, that make butter of such an exceptionally high quality, that they are able to get it at home from one dollar to one dollar and a quarter per pound, all the year round. But where there is one that does that, there are thousands that make it of such a poor quality, as to be able to get no more than from ten to fifteen cents per pound, at any season of the year, and it is always a drag upon the market.

It must, therefore, be evident to even a cursory reader, that there is something wrong in our plans or methods, or in the ability to make an acceptable and marketable article, such as the general public desires.

What is this wrong, and what is it that means it is to be remedied? The questions which we propose to discuss in this article will be discussed more fully in the forthcoming Dairy and Creamery Men's meeting, to be held in St. Louis, Wednesday and Thursday, 30th and 31st of January, 1884.

First, then, the wrong begins in our being unable to produce the quality of milk from which a good article of butter can, by any possibility, be made. This can be remedied only by testing our animals and proving their capacity, or incapacity, of weeding the herd of the poor ones and fattening them for the butcher, and of retaining others that are able to do better, to take their place.

Second, We make poor provision for the feeding and the protection of our stock, permitting our milk cows to feed at the straw-stack too often, and giving them no other protection from the rains and driving snow, and wind storms of the most inclement seasons, not failing, however, to call upon them morning and night to fill our pails with what we suppose is milk for butter, or other human nourishment.

Third, We too often labor under the delusion that butter can be made from milk, no matter what it is made of, and by any person that can turn a churn, or handle and mould into rolls the white stuff that comes from it. It is needless here to say that there are good butter-makers, and others again who are not good, and who, indeed, ought to be allowed to do nothing but turn the churn, if that.

Fourth, It must be evident that in a neighborhood having 500 cows, the butter from which is made by from fifty to one hundred different persons, the want of uniformity of the product will detract very materially from its value when it reaches its destination. Not only will every different churning differ in color, from the whiteness of the milk to the deepest yellow of the best June butter, but in grain, texture, taste and the form of putting up and handling. And this want of uniformity must of necessity detract from its value. In the estimation of both the merchant buying, and the consumer who is to eat it.

Fifth, On the contrary, if the milk from those cows, or rather the cream taken from it, had gone to one central factory, into the hands of expert butter makers, having the latest improved machinery and every proper appliance for making, handling, salting, packing, etc., it will be evident that it would be turned out of all one color, grain, taste and marketable value, and that its uniformity in these respects would make a difference of from five to twenty-five cents per pound in the best market.

Sixth, If, then, it can be shown that the farmer gets as much for his cream, without the labor of churning, or the time and trouble of marketing, as he did by the old process of making at home, what is to deter him from uniting with others in forming a creamery association in his neighborhood and thus save much onerous labor at home to those who are already overtaxed with other and more important duties? But if those

whose butter now brings but eight to fifteen cents per pound, can sell their cream at the rate of 20 cents per pound, and besides have the skimmed milk left for other purposes, how much more of a saving is effected?

This is what a central factory, usually called a creamery, is able to do, and these are the reasons why the RURAL WORLD has espoused the cause of such institutions, that labor may be saved at home, more money be made by the farmer, his own State or district supply its own wants, and build up its own industries instead of paying tribute to others and adding value to their farms. By these means the farmer is able to put more of his land in grass, save his own labor, avoid the necessity of so much hired help, enjoy better returns and much more leisure for mental enjoyments and home comforts.

Brother farmers, these are facts. They are beyond the reach of cavil or uncertainty. Do they commend themselves to your best judgment? Or, are you willing to share on for the merest pittance, as our fathers did before us?

The Mississippi Valley Dairy and Creamery Men's Association.

As heretofore announced, the meeting of this association will take place in the city of St. Louis on Wednesday and Thursday, 30th and 31st January. The programme of the meeting is now in course of preparation and we are advised by the secretary that he will be glad to hear from any person who will deliver an address or read a paper.

These will of course be short, pertinent and of interest to those engaged in any department of the business.

We expect the meeting to be eminently a practical one, and that the speakers will have experience in the department of which they speak.

It is understood that a cordial and earnest invitation is extended to those in anywise interested in the dairy or creamery business, be it the production of milk for city use, or of cream for the creamery or cheese factory. Those who contemplate the erection of creameries in their neighborhood and those who manufacture an article that enters into consumption or use at such are cordially invited, and if they have anything to tell of moment to come prepared to tell it.

A Private Dairy.

Joseph W. Drury, of Waterloo, Illinois, has what may be called a nice home dairy, consisting of some twenty to thirty animals. During the past year he has milked sixteen cows, five of which were with their first calves. They are all from five-eighths to fifteen-sixteenths Jersey cattle. In figuring up his last year's business he discovers that from the sixteen cows he has made 5,656 pounds of butter, an average of nearly one pound per day for every cow fed, for which he gets from 32 to 40 cents per pound the year round. His contract with the largest buyers is 32 cents, but others come along now and again and have to pay the retail price gotten by larger buyers, viz., 40 cents; hence, after paying for packages and express charges, the butter for the year has netted him thirty-four cents per pound.

A little figuring will show that Mr. Drury has made his cows, in milk, produce him a fraction over \$120 per annum; a pretty good value for three or four good milk cows. Being asked how he fed them he replied: "I feed my cows on grass all through the summer, but when they come up to be milked, always give them a good feed of dry bran, consisting of about one gallon. In winter, however, when grass is short and sometimes not come-a-table, he keeps his cows pretty close to the stable, allowing them exercise in going to and coming from water, and feeding them with cracked corn and mixed with bran and crushed corn and cob meal. Two-thirds of this mixture is composed of chopped wheat, the remainder of bran and corn and cob meal.

Mr. Drury, however, never allows his stock to go hungry; watches them closely, notices those that feed more than others, and makes it a point to see that all are satisfied. Moreover, it will be seen that he superintends his cattle, looks after their comfort and their food and fodder, and indeed everything that pertains to his business.

Here, then, is an illustration of what may be done by the use of well-bred cows in the first place, good feeding and handling in the next, and a business-like arrangement for the disposition of the butter when it is made and ready for market. Verily, business is business, and the man that utilizes the means at his command to the best advantage is the man that makes the money.

Holsteins to the Front.

EDITOR RURAL WORLD: Our last importation of Holsteins have arrived at Beechwood, are safely housed, and comfortably quartered. The animals are pronounced by all who have seen them, the best conditioned Holsteins they ever saw. We have about 225 heifers due to calve from March to June, and they are indeed beauties, and so complimented by all of our customers who have been here to see them.

Our five-thousand-dollar-bull, Jacob, out of Mercedes, is feeling and doing finely, has been in service from the first day of his arrival. He is in fine shape, and weighs 2000 lbs.

I have made the following sales since I saw you at the Fat Stock Show in Chicago:

1 Car load, Jos. E. Miller, Ills.
1 Car load, W. B. Clark, Tenn.
1 Car load, Underwood & Emery, Minn.
1 Car load, Buchanan Bros., Ills.
1 Car load, T. P. Lambert, Minn.
5 Head, E. H. Waldron, Indiana.
5 Head, T. S. Porter, Ohio.
4 Head, S. B. McLain, Ohio.

And about twenty head that went singly and in pairs to parties in different States. Your paper, the RURAL WORLD, has done me good work; I have you credited with at least 30 head, and add my testimony to the 1000 others that the RURAL WORLD is the paper. Aply edited by splendid men in the office, in my estimation there is none better.

J. W. STILLWELL & Co.
Troy, Ohio.

Modesty would have prevented the publication of the above, but for the fact that the dairy and creamery men of this

COLMAN'S RURAL WORLD.

A REMEDY FOR CURING CONSUMPTION, COUGHS, BRONCHITIS, ASTHMA and CROUP.

As an Expectorant it has No Equal.

Rev. B. L. Selman, of the M. E. Church, gives his words in favor of Allen's Lung Balsam.

READ WHAT HE WRITES.

GREENVILLE, ALA., November 12.

Dear Sir:—Yours of October 20th to hand, and would have answered before now, but having a supply of LUNG BALSAM, and by its use I was improving fast, I concluded to wait awhile.

I have had a cough for about twenty years; last year I was troubled much. I thought I would have to go traveling, but finding some of your valuable LUNG BALSAM in the country, I tried it, and in a few days I was cured. I have since used it, and as I have tried so many remedies, I concluded to try your LUNG BALSAM, which I did with good success, and thought I was well. Last August, while laboring very hard in protracted meetings, the cough returned; as soon as I could get another supply of your LUNG BALSAM, and in the past two years I have used about ten bottles, and am able to be up and to reach again.

I could not tell you the amount of medicines I have used in the past twenty years, but I find your LUNG BALSAM superior to anything I have ever used, and I shall use it if I ever need any more, and I shall never cease to recommend your valuable LUNG BALSAM to those who have been afflicted as I have been.

Very truly your obedient servant,
B. L. SELMAN.

Mrs. Geo. B. Tatum writes from Clinton P. O., Va., endorsing ALLEN'S LUNG BALSAM in high praise. She had used it freely among the poor and orphan children under her charge.

MINISTERS and PUBLIC SPEAKERS.

Who are so often afflicted with Throat Diseases, will find a sure remedy in this BALSAM. Lozenges and wafers sometimes give relief, but this BALSAM, taken a few times, will insure a permanent cure.

J. N. HARRIS & CO., Proprietors, CINCINNATI, O.

For Sale by All Medicine Dealers.

State are booming the Holstein cattle and cannot get enough of them, and we wish the farmers to know it.

Northwestern Dairymen's Association.

EIGHTEENTH ANNUAL CONVENTION.

The Eighteenth Annual Meeting of the Northwestern Dairymen's Association will be held in the city of Mankato, Minnesota, commencing Tuesday, Feb. 12th, 1884, and continuing with three sessions a day, closing Friday the 15th.

The splendid success of the meeting of last year, which was held at Mankato, induced the executive committee to select the same locality for the meeting of 1884. Every indication warrants the conclusion that the coming convention will prove the grandest success in the history of the Association. A full array of the best dairy talent of the entire northwest will be present.

The meetings of the Association have always been characterized by a large and free discussion of topics calculated to instruct and profit the individual dairyman, and it is especially desired that as many of this class as possible make an effort to be present at this meeting.

Mankato is easily reached by three important railroads, the Chicago & Northwestern, the Chicago, Minneapolis & Omaha, and the Chicago, Milwaukee & St. Paul. Reduced rates of fare will be accorded to all members of the Association who attend the Convention.

Manufacturers and dealers in dairy and stock implements, are invited to be present and exhibit the same, for which purpose a convenient room will be provided. Dairymen are invited to bring samples of their butter and cheese for exhibition.

The purpose is, both in the arrangement of the programme and in the conduct of the discussions, to make of the coming convention an institute for study and instruction, which no intelligent and progressive farmer can afford to miss.

For further particulars address the undersigned.

W. D. HOARD, President, Fort Atkinson, Wis.

R. F. MCGILVER, Sec., Elgin, Ill.

Analysis of Michigan Dairy Salt, J. F. Ewing, Agent, 105 N. Third Street, St. Louis, Mo.

CHICAGO, ILL., July 18th, 1883.

This certifies that I have analyzed for the Michigan Dairy Salt Co., a sample of Dairy Salt with the following result:

Calcium Sulphate.....	3582
Calcium Chloride.....	3316
Magnesium Chloride.....	Trace
Sodium Chloride.....	98.0250
Moisture.....	1.4200
Insoluble matter.....	.0627
Sulphate of Soda.....	None
Total.....	100.000

This sample of salt, outside of the moisture, contains only .5505 per cent. of foreign matter, and may therefore be considered to be salt of excellent quality.

Analytical and consulting agent and assayer, No. 31 South Clark Street, CHAS. A. MANN.



ROYAL BAKING POWDER
Absolutely Pure.

This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kind, and cannot be sold in competition with the multitude of low test, short weight, alum or phosphate powders. Sold only in cans.

ROYAL BAKING POWDER CO., 106 Wall St. New York

TURKISH BATH ESTABLISHMENT,

311 N. Seventh St., Between Olive and Locust.

GEO. F. ADAMS, M. D., SUPT.

FOR LADIES:—Monday, Thursday and Saturday mornings from 9 a. m. to 12 m.
FOR GENTLEMEN:—From 7 a. m. to 9 p. m.
SUNDAYS:—From 7 a. m. to 12 m.

CRAZY PATCHWORK

By return mail. Full Description

FREE. See the New Tailor System of Dress Cutting. MOODY & CO., Cincinnati, O.

DAIRY SUPPLIES.

DAIRY SALT.

BEST IN THE WORLD FOR DAIRY AND CREAMERY PURPOSES. Sold in bulk, barrels or sacks.

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